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Training Objectives for Tank Platoon Leaders: A Focus Group Evaluation

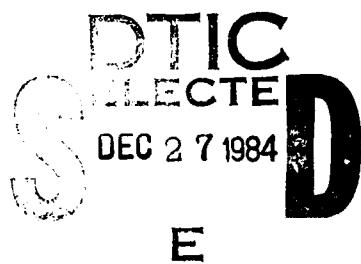
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Training Research Laboratory

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Training Objectives for Tank Platoon Leaders: A Focus Group Evaluation

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FOREWORD

A systematic description of tactical leadership training objectives is a fundamental requirement for an effective combat leadership training program. The usual format employed for developing Army training objectives, though adequate for tasks that are procedural in nature, has not proved suitable for tactical leadership tasks. A different approach is needed to more fully capture the performance requirements imposed by the dynamic nature of the combat environment in which the tactical leader must operate.

A new format was developed to overcome the limitations of the traditional Army format in preparing tactical leadership training objectives. This format was tried out on a sample of tactical tasks performed by tank platoon leaders as reported in ARI Research Product RP 83-1.

This report describes the results of an intensive examination of the new format in the context of tank platoon leadership training. A series of dynamic group interviews with participants intimately familiar with the tactical training and evaluation of tank platoon leaders was employed to evaluate the format and its potential use in Army training.



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**TRAINING OBJECTIVES FOR TANK PLATOON LEADERS:
A FOCUS GROUP EVALUATION**

BRIEF

Requirement:

To evaluate a new format proposed by O'Brien and Drucker (1983) for describing tactical leadership training objectives and to examine the approach to be taken in extending this format to encompass training standards.

Procedure:

Dynamic reactions from specially-recruited groups of Army personnel were elicited concerning the new format as well as its content, rationale, potential applications and possible extensions. The focus group interview technique was used to obtain the dynamic reactions. Interviews were conducted with 12 groups of four to nine participants.

Findings:

On balance, the format was perceived as having considerable promise as a method for presenting and emphasizing training content that is inherently useful in the formative stages of tactical leadership training. A predominant theme among the participants was the view that the format provides basic tactical training ingredients that allow a tank platoon leader to organize his thoughts and actions for field exercises. In this perception, the content was viewed as being potentially valuable as a self-training tool and as a discussion aid to diagnosis and remediation of tactical performance deficiencies.

During the course of the interviews, the participants made numerous comments suggesting that the highly-valued tactical training content within the format be restructured for easier assimilation by new tank platoon leaders.

The participants described potential extensions of the format to encompass training standards. However, many thought that such extensions could have the ultimate effect of subverting a potentially good training tool into a test with consequent loss of training capability.

Utilization of Findings:

The findings of this research are directly useful to training developers and trainers responsible for tactical instruction designed for junior officers. They may also be of future value to researchers concerned with the documentation of "expert knowledge" in tactics.

**TRAINING OBJECTIVES FOR TANK PLATOON LEADERS:
A FOCUS GROUP EVALUATION**

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TRAINING OBJECTIVES FOR TANK PLATOON LEADERS: A FOCUS GROUP EVALUATION

INTRODUCTION

This study had two primary objectives. The first objective was to evaluate a new format for preparing Army training objectives for tactical leadership tasks. The second objective was concerned with the approach to be taken in extending this format to include training standards that could be used in after-action reviews. The second objective also addressed the topic of resource requirements in collecting performance data during tank platoon exercises and in providing feedback that is helpful to tank platoon leaders.

The study objectives were accomplished by eliciting dynamic reactions from military subject matter experts concerning the new format as well as its content, rationale, potential applications and possible extensions. The focus group interview technique was used with 12 specially-recruited interview groups of participants. Seven of these groups were interviewed in Phase I, while the other five groups participated in the Phase II interviews. This research report provides a concise description of the interview findings and discusses the implications of these findings on the training and evaluation of tank platoon leaders. A companion research note provides a comprehensive summary of the interview content and findings that furnished the data base for the evaluation presented here.

Problem Discussion

Central to successful armor operations is the performance of the tank platoon leader. This front-line, middle-management position shoulders much of the burden of battlefield operation. A significant problem at present is the difficulty many tank platoon leaders have in increasing or even maintaining tactical leadership skills after they leave the Armor School and join their operational units. A systematic description and prioritization of training objectives and standards for tank platoon leaders along with an effective scheme for employing limited training resources to allow these leaders to increase and maintain their tactical leadership skills would do much to enhance armor operations.

Training objectives for Army tasks (see FM 21-3, 1981) typically contain a task statement, a summary of conditions under which the task is performed, a sequential listing of task steps or actions often referred to as performance measures, and standards that must be met while the task is being performed. Organization of training objectives in this manner ordinarily facilitates the training necessary to increase skills and establish task mastery. Experience has shown that an organization of training objectives, such as that employed in FM 21-3, works reasonably well when applied to equipment- or procedurally-oriented tasks, but seems to falter when applied to tactical leadership tasks such as those that are critical to tank platoon leader performance in a combat environment. The reasons for this breakdown in training technology presumably

have to do with the dynamic nature of the field situations in which the tank platoon leader operates and the stressful demands on tactical leadership skills that are made on him.

In an attempt to overcome the obstacles of employing the traditional Army format in preparing tactical training objectives for tank platoon leaders, O'Brien and Drucker (1983) developed a new format. See Appendixes A and B for outlines of this format. This format is unique in that it describes the tank platoon leader's role in each combat task that he performs and spells out how that task can be decomposed into a series of elementary tactical leadership activities and thought processes.

They started out with a very detailed analysis (1981, 1982) of tank platoon training operations using doctrinal manuals (FM 71-1, 1977; FM 71-2, 1977) as basic sources. Then, they identified many of the tank platoon tasks performed during tactical missions. From these they derived 191 tank platoon leader tasks. With the aid of subject matter experts, they selected 34 tank platoon leader tasks that were considered most critical to mission success. Then, using a special format, they spelled out tactical leadership activities and thought processes for each selected task and presented these as sample prototype training objectives for tank platoon leaders.

The tactical leadership activities and thought processes in the O'Brien-Drucker format are grouped into four task components: (1) a decision component which includes information and conditions that are to be considered in making the decision to perform the task, as well as principles for determining whether this decision was properly made, (2) a command component which lists the information that should be contained in the initial and subsequent orders to the platoon, and (3) an execution component which includes information, conditions, and principles that are to be considered in continuing or stopping task conduct. For tank platoon leader tasks that do not directly involve the platoon, the command component and the execution component are replaced in the format by (4) an action component. Here, the necessary steps to complete the action are given and if the action requires a request or report, the information to be contained in such communications is listed.

O'Brien and Drucker omitted specific reference to performance measures or standards in their format. The myriad variations in the specific tactical circumstances confronted by platoon leaders in actual combat were considered to be too numerous and complex to allow standards to be applied fairly across all situations. The conclusion was that fixed standards could only be set in relation to particular scenarios and conditions eliciting the task. However, the tactical principles involved in the decisions and execution of the task were regarded as guides to the development of standards for performance in particular situations. How the platoon leader applies the principles and accomplishes trade-offs among conflicting principles should presumably reflect his tactical proficiency.

STUDY APPROACH

The study approach employed here was designed to make an in-depth examination of the O'Brien-Drucker format for the purpose of evaluating its potential use in Army training. A fundamental premise in this evaluation is that any attempt to assess a new format proposed for tactical training in the Army must be especially sensitive to the viewpoints of Army personnel intimately involved in the training process, including the trainees themselves. For this reason, the research reported here employed an approach (Wells, 1979) adapted from the marketing world that has often proven to be effective in this type of inquiry.

The approach employed two types of information elicitation instruments. An interviewer's aid, commonly referred to as a "discussion guide," was developed in order to conduct the dynamic group interviews. To support this guide, visual aids extracted from various sources (O'Brien-Drucker, 1983; ARTEP 71-2, 1981; FM 21-3, 1981; TC 17-15-1, 1983; AOB Lesson Plan, 1983) were prepared in order to assist the participants in focusing on the discussion topics. In addition, an introductory scenario was developed to set the stage for the group discussions. The second type of instrument constructed was a group participant background questionnaire which was used as an aid in studying variation in group responses. The entire interview procedure was anonymous in order to stimulate dynamic group participation, particularly since the topical area chosen for this study often involves critical comments concerning Army training and performance.

To facilitate interactive participation, an information-elicitation technique known as "focus groups" was employed. The focus group idea grew out of the early work of Kurt Lewin (1939) in his "action research" program conducted during the forties. The idea gained considerable acceptance as a "motivation research" technique after World War II. Since then, it has flourished as a viable alternative to expensive questionnaire surveys that provide lots of impressive numbers but lack depth in explaining the factors influencing those numbers.

The insightful findings that typically result from focus group research are primarily attributable to the flexibility and spontaneity that are characteristic of dynamic group participation. However, such flexibility and spontaneity preclude the kind of quantitative statistical verification that obtains in a highly structured sample survey. Therefore, the findings reported here should be viewed as suggestive and preliminary rather than final or conclusive. If important training policy decisions are to be considered as an outcome of this study's findings, such decisions should draw support from other sources including, if possible, verification by the more traditional survey methods.

The subjects for this study were drawn from Armor School organizations and active Army combat units at Fort Knox. Included in the groups were platoon leaders, company commanders, platoon tactics instructors, training designers or developers, and armor officer advanced course (AOAC) students. The groups were constituted to represent those who formulate what objectives should be trained, as well as those intimately concerned with how those objectives are trained.

The focus groups were scheduled at two different time periods during the project. The interviews conducted in Phase I focused primarily on the structure, content, and training implications of the O'Brien-Drucker format. The groups here included personnel who had recent experience as tank or infantry platoon leaders at the National Training Center (NTC) in Fort Irwin. The interviews conducted in Phase II focused more on training evaluation and standards development. The groups here were constituted more heavily of participants who are involved with training standards.

Subjects

A total of 43 subjects participated in the Phase I interviews at Fort Knox. These subjects were recruited from six different sources and organized into seven focus groups as follows:

<u>Group Number</u>	<u>Group Size</u>	<u>Group Description</u>
1	6	Recent experience as tank platoon leader or scout platoon leader at National Training Center.
2	4	Recent experience as infantry platoon leader or combat support (weapons, artillery, engineer) platoon leader at National Training Center.
3	9	Past experience as a company commander or company executive officer at National Training Center.
4	6	Armor Officer Basic (AOB) instructor in platoon tactics, chemical, artillery, or engineer. Commissioned officer.
5	6	Armor Officer Basic instructor in platoon tactics. Noncommissioned officer (NCO).
6,7	6 ea.	Armor Officer Advanced Course student with 12 or more months of tank platoon leader experience that included major field exercises.
<hr/>		
Total	43	

The Phase I participants ranged in length of Army military service from one to eighteen years. Median length of such service was six years. In service as an armor or infantry officer, they ranged from zero to eleven years with a median of four years. Forty-three percent of the military participants received commissions through Reserve Officers' Training Corps (ROTC). There were 16 captains, 14 first lieutenants, 5 second lieutenants, one E-7, and six E-6's. Seventy-six percent of the participants indicated Armor as their branch, while 17% indicated Infantry. The primary Military Occupational Specialty (MOS) classifications given were 12-Armor (62%), 11-Infantry (17%), and 19-Instructor (14%).

A total of 35 subjects participated in the Phase II interviews at Fort Knox. These subjects were recruited from four different sources and organized into five focus groups as follows:

<u>Group Number</u>	<u>Group Size</u>	<u>Group Description</u>
8	6	Armor Officer Basic instructor in platoon tactics. Commissioned officer.
9,12	9 and 6	Armor Officer Advanced Course student with 12 or more months of tank platoon experience that included major field exercises.
10	8	Training designers or developers. Included both military and civilian employees.
11	6	Armor Officer Basic instructor in platoon tactics. Non-commissioned officer.
Total	35	

The Phase II participants ranged in length of Army military service from none to fourteen years. Median length of such service was six years. In service as an armor officer, they ranged from zero to thirteen years with a median of four years. Forty-four percent of the military participants received commissions through ROTC. There were 24 captains, two E-7's, five E-6's, one major, and three civilian employees.

Ninety-seven percent of the military participants indicated Armor as their branch. The primary MOS classifications given were 12-Armor (78%) and 19-Instructor (22%).

The characteristics of the Phase I and Phase II participants resembled each other a great deal except for the inclusion of Infantry personnel in Phase I and civilian personnel in Phase II. Three interviewees participated in both the Phase I and Phase II interviews.

RESULTS

Phase I Interviews

The Phase I interview participants reacted to the discussion topics posed in the focus interviews in a highly motivated and professional manner. Their responses were grouped into three principal categories as follows:

- o Structure -- These responses involved the manner in which tactical leadership activities and thought processes were organized in the format. The O'Brien-Drucker task components (decision, command, execution, action) and subheadings under these were the main features attended to here.
- o Content -- These responses were oriented toward the detailed tactical leadership activities and thought processes described under the task components and subheadings.
- o Training Implications -- These responses occurred pretty much spontaneously during the structure and content discussions. The implications were typically voiced as issues relating to the format developed by O'Brien and Drucker.

Structural Considerations. The participants reacted in a variety of ways to the structural features of the format. Their evaluations tended to be generally favorable, yet they took issue with certain aspects of the format. Usually they regarded the decision, command, execution, and action components as being potentially useful ways of organizing task training objectives. Some took issue with the names assigned and some suggested combining or rearranging the components. Others felt that the components should be completely revised or removed in order to bring into clearer focus the tactical leadership activities and thought processes reflected in the content.

The format cross-references to Army Training and Evaluation Program (ARTEP) were especially well thought of due to the general acceptance of ARTEP as a frame of reference.

The format was seen as exhaustive, but possibly at the expense of optimal efficiency, which the respondents felt depended a great deal on the extent to which users would comprehend and accept it. Some participants felt that the unique format employed, i.e., the component structure with its outline mode of presentation, tends to encourage the exclusive use of the material for evaluation at the expense of training.

Other participants took issue not so much with the format per se, but with the economic justification of the format on the grounds that, as they saw it, it tended to be a rearrangement of existing training materials. Still other participants felt that a highly structured, detailed, paper-oriented approach to training platoon leaders was less effective than a more global (if not subjective) approach to developing training objectives as executed by an experienced company commander.

The strengths of the format, as seen by the participants, were thoroughness, delineation of conditions for task performance, overall comprehensibility, and potential expandability. Weaknesses included potential user misunderstanding of the components, an inability to fathom the outline method used, and failure to deal with specific task goals and outcomes.

Various suggestions were made to improve the format. One which bears further investigation is the addition of a Task Results section to remove the "So what does this all lead to?" comment that was made quite frequently by the participants. Another notable suggestion concerned the addition of a Company Commander's Subjective Options section to supplement the format. This suggestion appears to have potential for enhancing the use and acceptance of the new format at the unit level. A number of participants suggested that the Task-Conditions-Components format be scrapped while preserving the highly thought of tactical leadership activities and thought processes contained therein. One popular avenue which this rearrangement might take, according to many participants, is a tank platoon leader's pocket guide.

Content Considerations. Frequently, the respondents pointed up the cumbroseness of the content. Typically, they felt that this tended to detract from the inherent usefulness of the material. Many suggested that serious attention be given to simplifying the content. These reactions were often exacerbated by the tendency of the content to be repeated almost verbatim in different sections of the format.

Adding further to the above exacerbation was the frequent perception of inaccuracies or lack of tactical common sense in the content. These flaws were typically, and we might add graciously, viewed by the participants as readily surmountable by having knowledgeable tank platoon personnel screen the content and clean it up to remove the flaws.

Overall, the content subsumed under the O'Brien-Drucker format was viewed very favorably with the possible exception of a number of participants who felt either that the content was redundant with existing materials or that such detail was not really desirable. Although the accuracy of the content was flawed, this generally only tended to attenuate favorable acceptance rather than cause rejection of the approach. The content generally conveyed an impression of meticulous effort and thoroughness among the participants once they digested the substantial detail portrayed in the format. The efficiency of the content did come under frequent criticism, but usually only in the form of constructive pleas to make the content simpler and easier to understand. The persistence of questions among some of the participants concerning the redundancy of the content with other training materials bears additional investigation in order to determine to what extent such redundancy constitutes an impediment to further development of the O'Brien-Drucker approach.

Training Implications. The recent returnees from NTC provided an excellent basic frame of reference for discussing training issues from a combat perspective. They typically characterized the tank platoon leader's job at NTC as being much like a juggling act under stress. The one thing that stood out most clearly in their minds was how quickly they became overloaded there and had to learn to share their work load with their subordinates. In this, they felt a strong need for teamwork, cooperation, and mutual trust, e.g., allowing

subordinates to assume responsibility for tasks that they can do reasonably well without constant supervision from the platoon leader.

Senior and junior armor officers with NTC experience stressed the importance of maturity, common sense, and experience as the real keys to tactical success under stress. They felt that these global parameters were especially important in proper terrain navigation, in directing fire, and in controlling a platoon under a heavy load of stressful conditions such as those confronted at NTC. It is quite likely that such global parameters of tactical leadership act as cybernetic master switches controlling, and overriding if necessary, the elementary tactical leadership activities and thought processes such as those portrayed in the O'Brien-Drucker content.

Certain platoon leaders appear to have the ability (the participants called it "second nature") to size up the tactical situation quite rapidly and select those tactical leadership activities and thought processes that optimize the response to the situation, whatever it may be. Such actions are typically viewed by their commanders as evidence of maturity, common sense, and experience. New platoon leaders are typically deficient in this ability, which appears to be a special form of practical intelligence. However, they usually present enough of the ability to allow them to be trained into maturity by exposing them to stressful tactical problem situations and correcting their errors as they occur.

However, there are more than a few platoon leaders (as frequently reported in the focus group discussions) who are not too well cut out for the role of a field tank platoon leader despite what their classroom, textbook, terrain board, etc. achievement records may show. These officers seem to be able to acquire field maturity and common sense only with great difficulty, if at all. Such officers often leave the field environment early in their Army careers and some leave the Army altogether. These existing conditions tend to reduce the cost-effectiveness of tank platoon officer training. Such implications point up the need for dynamic studies of Army tactical training needs and procedures such as the one performed in this project.

Participants intimately involved with intraplatoon operations, such as the NCO instructors in platoon tactics, basically felt that tactical leadership is indeed composed of highly detailed activities and thought processes and should ideally be trained at this level of detail. One NCO stated that we would have the best tank platoon leaders in the world if only we were able to train at this level. However, practical constraints in time, schedules, and resources usually prevent training at this level of detail. Unfortunately, such fine-grain thought process training is often deferred to the tank platoon leader himself since he may not have ready access to a sympathetic company commander or a platoon sergeant on a day-to-day basis to help him with this training. As one compromise, the NCO instructors suggested a condensation of the content portrayed by O'Brien and Drucker and perhaps an introduction of the condensed content into additional AOB or AOAC tactics training, if this could be arranged.

Summary. Generally speaking, the responses of the Phase I focus group participants varied around certain primary response themes. One predominant theme was the view that the O'Brien-Drucker format provides basic training ingredients that allow a tank platoon leader to organize his thoughts and actions for field exercises. In this perception, the content was viewed as

being potentially valuable as a self-training tool and as a discussion aid to diagnosis and remediation of tactical performance deficiencies. A variant of this theme was the viewpoint that the O'Brien-Drucker methodology might potentially result in negative training effects because of the lock-step manner in which some participants felt the tactical leadership activities and thought processes tended to be spelled out.

Another theme was the view that the tactical leadership activities portrayed by O'Brien and Drucker already exist in other sources and as such would, if the approach was implemented as a training manual, tend to increase the paperwork burden of field officers. A number of participants in this context emphasized that live tactical missions supervised by an experienced company commander were far more important to training tank platoon leaders than paperwork-oriented approaches.

Another theme was the tendency of participants to stress higher-order abilities such as common sense, maturity, and experience as the key attributes of a combat-ready tank platoon leader. The training implications of this viewpoint were discussed in the previous section.

Another major theme was expressed as a concern regarding the use to which the training material developed by O'Brien and Drucker was going to be put. In this context participants felt that the content portrayed was indeed quite valuable in that it contained information for assisting new tank platoon leaders to gain the kind of maturity required for effective combat leadership. However, they seemed to be very concerned that this material might be converted into a rigid process of standards for tank platoon leaders. They expressed the fear that such rigidity would have self-defeating consequences. Some participants went so far as to suggest that the material not be documented as a training manual. Rather, they felt that the value in the material would be maximized by removing from it any semblance of ARTEP/SQT-like requirements (Skill Qualification Test), like performance measures, standards, prescribed decision steps, etc. Then, they felt that the material should be rearranged and published as a handy tank platoon leader's guide. In a handy form, they felt that the long-term interests of the Army would best be served because a convenient and popular means would be provided for helping young tank platoon leaders to grow into maturity through study and appropriate application of tactical decision processes in field exercises.

Phase II Interviews

The subjects taking part in the Phase II focus groups also reacted in a totally professional manner. As in the Phase I interviews, all the Phase II participants were thoughtful and vigorous contributors to the group discussions.

Follow-Up Reactions to the O'Brien-Drucker Format. The Phase II participants were also presented with detailed examples of O'Brien-Drucker training objectives for a command task and an action task. They were first asked to react to this material before proceeding to topics involving evaluation and standards development using the O'Brien-Drucker format as a point of departure.

As before, most participants felt that the minute breakdown of training objectives into detailed tactical leadership activities and thought processes

reflected a dedicated "A for effort" research job. However, there was again considerable discussion and contention as to the extent to which such a fine breakdown of behavior could be put to practical use. When the group discussion topics put forth by the moderators involved using the detailed breakdowns to obtain training standards and after-action reviews, the group discussions typically increased to a very high level of intensity. Quite often the group moderators were placed in a position of pressuring the group participants for constructive solutions to what appears to be a basic problem, i.e., how and where should task detail be employed in order to optimize the training and evaluation of tank platoon leaders?

The respondents typically rejected the concept of fine-grain tactical standards and tended to feel that task details such as those portrayed by O'Brien and Drucker are primarily conducive to study, diagnosis, and remediation when things go wrong rather than as general approaches to evaluation and standards development.

The Phase II respondents considered the O'Brien-Drucker format to be a far cry from a panacea, and some saw it as having a potentially untoward effect. However, they felt that, at the very least, the O'Brien-Drucker material could be used as a reference, guide, or resource for trainees to use as a study aid in helping them improve their tactical thought processes, so to speak. In particular, they saw it as being useful with young lieutenants in conjunction with the classroom and prior to field exercises. This corresponds pretty much with basic themes expressed by the Phase I respondents.

The utility of the O'Brien-Drucker format was again regarded as being constrained by:

- o The sheer cumbersomeness of the material (e.g., "You just can't paste this up in your tank.").
- o The need to integrate the "minutia" of the O'Brien-Drucker "thought processes" into higher level principles. In this regard, the specific "decision principles" put forth by O'Brien and Drucker were generally refuted, but the basic idea of integrating actions into basic principles was viewed as a necessity in further development of the approach.
- o As they view it, as long as a platoon leader is able to complete a mission task with reasonable success, then the O'Brien-Drucker format and content are superfluous. If the platoon fails, then this material can be of use in aiding diagnosis and mental review in a remedial sense. However, to insist that this format and content become doctrinal gospel in a lock-step fashion was typically rejected as counterproductive.

The Phase II participants also expressed concern with various flaws that they isolated when asked to react to the detailed training objectives. Specific shortcomings seen included:

- o Tactical common sense errors (e.g., platoon will conduct fire and movement when all of a series of battlefield conditions are present). They felt that this statement lacked good sense and needed a complete overhaul.

- o Information that is out-of-date (e.g., platoon movement by sections). They emphasized that this does not properly reflect the new Division 86 tactics.
- o Disagreement on criticality (e.g., platoon leader monitors tube-launched, optically tracked, wire-command linked guided missile systems [TOWs]). They stated that TOWs monitoring is not really a responsibility of the platoon leader.
- o Repetitiveness of content (e.g., availability and effectiveness of supporting or suppressive fire, effectiveness of enemy fire, trafficability, obscuration, etc.). They felt that frequent repetition of these conditions in different sections of the format merely served to make it cumbersome.

Findings Concerning Evaluation and Standards. Considerable emphasis was given to the topic of tank platoon leader standards in the Phase II interviews. The respondents reacted with noticeable resistance to the notion of setting standards for platoon leaders separately from standards for platoons as a whole. Respondents generally felt that it is the platoon that either does or does not accomplish its mission and the actions of the platoon leader, though an important element, cannot and should not be considered in isolation, especially when evaluating a command-type task.

In spite of the fact that the participants insisted that it is the platoon that succeeds or fails and not the platoon leader, they unequivocally charged the platoon leader with the responsibility for platoon success or failure.

The Phase II respondents like the Phase I respondents tended to view ARTEP as their "bible." It is because they focus on the platoon rather than the platoon leader that ARTEP has this stature in their thinking and, consequently, their reaction to the basic idea of attending to the platoon leader alone is negative.

As the Phase II respondents viewed it, tank platoon leadership training and evaluation requires full-up platoon participation in the field under conditions as closely reflective of combat as possible. They feel anything less than that falls far short of the mark although it may be done as an interim activity.

Both trainers and trainees taking part in the Phase II interviews expressed frustration over their inability to have adequate hands on, full-up, platoon tactical training. This frustration tended to elicit a mild form of hostility toward the Army/industrial complex which they saw as responsible for the development of such weapons as the M1 tank. This tank is considered to be a problem in that its cost to obtain and operate tend to prohibit the extensive training it demands.

The Phase II participants tended to feel that the Army's insatiable demand for evaluation tends to have an untoward effect on everyday training. Indeed, as they saw it, what little true tactical training there is is contaminated by ubiquitous, omnipresent evaluation. There is little or no time for true practice, an opportunity to make mistakes, to learn by doing, to feel one's way, without the onerous, hovering threat of "go/no go," "pass/fail."

They often derided paper, manuals, checklists, etc. as being counter-productive. There is already far too much of it, it is all too redundant, and it is sometimes inconsistent, which creates confusion. Moreover, the paper approach winds up overwhelming both "trainee and trainer" and is quite often ignored.

Many of those taking part in the Phase II interviews expressed the concern that attempts to develop standards for platoon leaders' tactical performance, as an extension of the O'Brien-Drucker approach, could compound the problem.

- o Many commanders would simply train to such standards rather than truly developing the platoon leader's tactical leadership. The big picture, mission success, life and death, would tend to be eclipsed by mere performance scores that are at best merely a shadow of the tank platoon leader's true abilities.
- o Correspondingly, new platoon leaders would tend to focus just on attending to the "letter of the law" in meeting the standards rather than in the "spirit of the law" that defines their true role, i.e., common sense, creativity, leadership, maturity, etc.
- o A delineation of platoon leader tactical training objectives, and particularly corresponding standards, would tend to foster the illusion that something constructive is being done while masking the true problem of developing the tank platoon leader's "art."

Resistance to the development of tactical standards, along with the perception that detailed, valid, fixed, universally acceptable standards in this realm cannot readily be developed, ran generally throughout the Phase I and Phase II respondents. It tended to be higher among participants who recently had been tank platoon leaders. More senior participants tended to feel that some kind of standards for the tank platoon leader should be developed, but that these must be more general and flexible in the hands of the senior commander using them.

Detailed, rigid standards were regarded as anathema because of the likelihood that they would lead to deleterious effects such as "beating the system" rather than truly developing the tank platoon leader's "art." Indeed, as many saw it, standards for the tactical training of platoon leaders are acceptable only to the extent that they can be used as a flexible means of helping the individual platoon leader and his trainer illuminate and investigate tactical decision "thought processes" to get essentially at not the what of what happened in an exercise, but the why of what happened.

The Phase II participants typically agreed that the evaluative success or failure of a platoon in meeting its mission is a function of a host of inter-related and interdependent variables. These include, but are not limited to, the following:

- o The Platoon Leader
 - His training and experience, both that acquired in the classroom and particularly that acquired in the field

- His "native" mental abilities, including such things as: (1) a practical intelligence factor (not necessarily school-type intelligence), (2) an aspect of mental acuity relating to spatial (navigational) relationships, (3) the cognitive integration and synthesis of multiple sensory inputs and overloads, (4) the ability to prioritize and delegate competing sensory inputs, and (5) tolerance for ambiguity, frustration, and stress.
- Personality characteristics, including such dimensions as . . .
 - Leadership
 - Maturity
 - Common sense
 - Control
 - Creativity
 - Intuition (second nature)
- Perceived personality characteristics, i.e., the extent to which the platoon leader's subordinates perceive that he possesses these global, positive characteristics (or do they laugh and sneer at his attempts to act as a tactical leader)

- o The Remainder of the Platoon
 - The other personnel (especially the platoon sergeant)
 - The equipment (the tanks themselves, mobility, fire power, communication gear, etc.)
- o The Environment
 - The opposing force (OPFOR), which is the mirror opposite of the U.S. platoon in terms of its constituent elements (personnel and equipment)
 - The prevailing physical conditions (terrain, weather, etc.)
 - Random events, seen as frequently decisive in terms of ultimate outcome, yet by definition unpredictable and either a boon or a bane.

As the Phase II participants saw it, mission success or failure is a function of the permutation of many such elements all taking place in a fluid, accelerating vortex of change over which the tank platoon leader has only partial control. Such a conception should be seriously considered in developing either live or simulated tactical training programs for tank platoon leaders.

Under pressure exerted by the moderators, the Phase II participants did allow that some type of standards could be developed from the O'Brien-Drucker format. They felt that the best point of departure for doing this was in the execution principles subsection of the execution component. They felt that the content here contained at least the rudiments of actions or steps (performance measures) for which the tank platoon leader might be held accountable in a field exercise. They did not feel the same way about the decision principles

subsection of the decision component, perhaps because that part of the format was overridden with flaws in stating the conditions under which the task (fire and movement) should be conducted. The command component also offered some possibilities for standards development, as the participants saw it, because it referred to actions which might be more readily observable during a field exercise. However, the participants cautioned against the dangers of oversimplification here because many platoons (especially the more experienced ones) often use very subtle means of intrapatoon communication that may not be readily observable as traditional signals. Here again, the participants emphasized that if the platoon successfully accomplished the mission, then somehow they must have gotten the right signals to do so.

Some of the participants even allowed that time parameters might be placed on the platoon/platoon leader's actions in a field situation. The two most likely sources of such times would be: (1) NTC experience, and (2) intensive study of combat-like operations by study teams specially qualified to set up arbitrary, rational time standards for performance, e.g., X seconds to react to direct enemy fire on the platoon's positions. This type of time standard would need to be monitored periodically in field exercises and modified as necessary in order to maintain its status as a useful time standard.

Evaluation Resource Requirements. From their vantage point as tank platoon leaders, ex-tank platoon leaders, platoon tactics instructors, and training developers, the Phase II respondents described the requirements they thought were necessary to collect and feed back data on a tank platoon leader (and his platoon) during an exercise.

The minimum requirement stated was the presence of an experienced and qualified evaluator working with a notebook and pencil. In keeping with the preceding emphasis made on the need for full-up, whole platoon training, they felt that a platoon of tanks fully manned and equipped was highly desirable. However, they did acknowledge that circumstances did not always allow this, so they indicated that one could use jeeps, bicycles, terrain boards, etc. as substitutes for full-up training as long as the limitations of these procedures were recognized.

Ideally, the evaluator should be of captain's stature with extensive experience in tactical operations and evaluation. Presumably, this individual would sit in the loader's hatch of the tank platoon leader's tank, although this does have a tendency to artificially affect the platoon's actions. A second evaluator of similar stature would be desirable in another tank of the platoon, possibly the platoon sergeant's tank, in order to ascertain how much the platoon sergeant was actually leading the platoon and as a basis for determining how the tank crews reacted to the image of the tank platoon leader as someone they would follow in combat.

Ideally, a third evaluator would also be desirable, one who could observe the platoon's actions from the outside, so to speak, especially at the point of contact with the OPFOR.

A suitable OPFOR is also desirable. Here pyrotechnics may be employed if an actual OPFOR cannot be assembled for the exercise. Likewise, maintenance and support activities such as fuel, rations, medical assistance, etc. are indicated depending on the scope of the exercise. The use of facilities like

Multiple Integrated Laser Engagement System (MILES) is also desirable in order to maintain an accurate record of platoon and enemy outcomes.

The primary recordings to be made consist of paper and pencil notes of significant events occurring during the exercise that need to be reported to the platoon leader or others concerned with the evaluation. Most of the participants felt that a sound recorder is very desirable in that it can more efficiently and accurately reflect what happened during the exercise. The sound recordings would be particularly helpful during the feedback of information to the tank platoon leader. The evaluator would also need to have a radio tie-in with the platoon and company transmission channels so that useful excerpts from those transmissions could be extracted.

As can be seen above, the requirements for evaluation can vary from relatively economic facilities that are readily available to extensive and costly employment of personnel, equipment, supplies, and facilities. However, there does not appear to be a significant additional cost in feeding back information to the tank platoon leader over and above that of collecting the information. The one significant requirement for feedback is that of timeliness. It should be accomplished as soon as possible after the completion of the specific task exercise so that the tank platoon leader may optimally benefit from the feedback.

Post-Interview Ratings

The Phase I focus group participants were encouraged to verbalize letter grade ratings reflecting their post-interview reactions to the O'Brien-Drucker methodology. Some respondents gave separate ratings for format and content, while others gave only general ratings. In Phase II, letter grade ratings were obtained by written questionnaire in order to concentrate more uniformly on several factors that are pertinent to the evaluation of the O'Brien-Drucker methodology. Here, each participant rated the approach on four factors:

1. Appropriateness in describing what the tank platoon leader should be trained to do.
2. Potential for tactical performance standards development.
3. Potential for field performance data collection.
4. Potential for improving performance through diagnostic feedback.

The ratings for both Phase I and Phase II are summarized in Table 1. Appearing there are percentages of high ratings (B- or higher) for each rating characteristic or factor. The ratings are grouped by three types of participants: (1) AOAC students, (2) other officers, which included platoon leaders, company commanders, and instructors in Phase I, and instructors and training developers in Phase II, and (3) NCO instructors. Examination of the percentages in the table indicates that, in Phase I, the participants tended to be more impressed with the content provided by the O'Brien-Drucker approach than its format. The Phase I rating percentages also indicate that NCOs responsible for training tank platoon leaders were more receptive to the methodology than

the officers. This was reinforced by the Phase II NCOs who assigned relatively high ratings to the standards potential of the methodology.

The Phase I AOAC students verbalized relatively low ratings for both the format and content characteristics of the methodology. The Phase II AOAC students assigned distinctively different ratings to the four factors used for evaluation. Their ratings were relatively high concerning the appropriateness of the methodology in describing what tank platoon leaders should be trained to do and in the potential of the methodology for improving tactical performance through diagnostic feedback. On the other hand, their ratings were relatively low regarding the potential of the methodology for creating tactical performance standards or for providing the performance data necessary to evaluate a tank platoon leader during a field exercise.

Table 1

**Post-Interview Ratings of the O'Brien-Drucker Methodology
by Type of Army Focus Group Participant**

Variable (statistic)	AOAC students Phase I: (N=10) Phase II: (N=15)	Other officers (N=17) (N=10)	NCOs (N=6) (N=7)
Phase I			
Ratings of B- or higher--format (%)	25 (n=8)	43 (n=7)	No ratings
Ratings of B- or higher--content (%)	50 (n=8)	100 (n=5)	No ratings
Ratings of B- or higher--general (%)	0 (n=2)	50 (n=10)	100 (n=6)
Phase II			
Ratings of B- or higher --training objectives (%)	100	10	14
Ratings of B- or higher--standards (%)	40	30	71
Ratings of B- or higher--data collection (%)	33	20	29
Ratings of B- or higher--feedback (%)	87	40	57

Note 1: In Phase I, the cell n reflects a subset of participants who offered ratings of the type shown.

Note 2: In Phase II, the cell n is same as the column N.

The higher ratings for the "other officers" category in Phase I as compared to Phase II were primarily due to the presence of platoon leader participants in the earlier interviews. Such participants tended to be favorably impressed with the characteristics of the O'Brien-Drucker methodology, especially the training content features.

The above results correspond reasonably well with the verbatim comments made within the various focus groups during the interviews.

Summary. On balance, the O'Brien-Drucker method is recognized as having promise in terms of:

- o Its methodology for generating useful tactical thought process output.
- o The output itself (i.e., the thought processes).
- o The development of flexible standards and their use in after-action reviews or as preparation for field exercises.

The promise seems to be greatest for the individual tank platoon leader trainee who can use the material as a primer and stimulator of tactical thought processes, although never as a gospel for how to think in combat. The latter point cannot be overemphasized.

If the flaws and detail of the O'Brien-Drucker material in the field situation are reduced, it could have reasonably wide utility both in the school and field environments. However, the participants strongly emphasized that this use should never proceed in a lock-step manner (so as to avoid the deleterious effects noted earlier).

DISCUSSION

Fundamentally, the O'Brien-Drucker approach to preparing tactical training objectives for tactical leadership appears to be sound. However, the manner in which O'Brien and Drucker involved subject-matter experts could or should have been augmented, if not actually replaced with a more in-depth interchange with knowledgeable tank platoon personnel using focus groups, one-on-one interviews, or the like. This would have alleviated many of the problems that the participants in this study experienced when they were asked to react to the O'Brien-Drucker format.

The focus group responses obtained in this investigation suggest that the O'Brien-Drucker format has a potential value in training tank platoon leaders. However, in order to realize this potential and guide further development of the approach, certain necessary future steps are called for.

Revision of the Task Definition Contents (RP 83-1)

O'Brien-Drucker have in a sense "blazed the trail" in a heretofore uncharted area despite the fact that some of the interview participants deemed their approach to be redundant or unhelpful. Nevertheless, there are perceived shortcomings in their content. Before their format and its content can reasonably be expected to advance to the next stage of development, these shortcomings should be remedied. One reasonably sure way of accomplishing this is to involve knowledgeable tank platoon personnel in an intimate, dynamic, "action research," "focus group" process devoted to correcting and improving the existing content and making it easier to assimilate. It is strongly recommended that some or all of the "critical tasks" in the O'Brien-Drucker test sample be subjected to such "sanitization."

Level of Detail in Task Definition

This research indicates that properly sanitized output of the O'Brien-Drucker methodology can very well have utility in the field environment if the problem of cumbersomeness is resolved. Research techniques are available that will help resolve this problem. The focus of such research should be on:

- o Who are the actual intended users of this content?
 - Training designers and developers
 - School instructors
 - AOB students
 - New platoon leaders
 - Platoon leaders preparing for field exercises
 - AOAC students
 - Company commanders
 - Others (e.g., tactics researchers)

- o What is the most desirable structure to organize the content?
 - ARTEP-oriented structure
 - Matrix of principles x actions x thought processes
 - Other (e.g., specific user orientations)
- o What supporting media or devices are necessary to maximize the assimilation of this content?
 - Training developer's SOP (standard operating procedure)
 - Platoon leader's guide
 - Training manual
 - Computer-assisted text
 - Other (e.g., electronic simulators)

Any device, whether it be an electronic innovation or simply a condensation and rearrangement of the O'Brien-Drucker material, must be positioned so that it can overcome any negative predispositions on the part of primary users like training designers and developers. Such users must be convinced of the true utility of whatever is developed, for example, in relating knowledge and skill requirements to task specifications. The enhancement of utility can be facilitated by employing the type of research approach that was used successfully in this investigation.

Relationship Between Tactical Principles and Actions

Although O'Brien and Drucker developed principles such as the decision principles and execution principles for describing tactical leadership activities and thought processes, a concerted search for more meaningful principles underlying their highly detailed but valued content should be made. Such a search can be conducted in an action or focus group research setting using both experienced tank platoon personnel and research personnel. Such groups working jointly can probably evolve a useful set of working principles that would encompass the detailed content presented by O'Brien and Drucker and make it easier to assimilate.

One possible clue to this search stems from the frequent observation by focus group participants that the drawn-out content of the O'Brien-Drucker format can readily be subsumed under such "principles" as mission, enemy, troops, terrain/weather, time, space (METTS), action on contact, troop leading procedures, and the like. The implication in these comments is that if the tank platoon leader understands these principles, he will in fact know the O'Brien-Drucker content. This observation plus the frequent references that the respondents made to ARTEP while discussing the O'Brien-Drucker content seem to be profitable avenues of research aimed at integrating this content into a more assimilative structure based on understandable and acceptable principles.

The O'Brien-Drucker research may be regarded as an initial effort to define "expert knowledge" in armor tactics, and may be most useful, in the long run, to researchers in artificial intelligence that may be interested in developing "expert systems" tutors in computer-based tactics instruction, intelligent tactical evaluators as training devices, or other innovations for aiding tactical decision-making, communication, or command and control in combat systems.

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APPENDIX A
COMMAND TASK FORMAT OUTLINE

I. TASK TITLE: Platoon Leader Directs Fire and Maneuver (Movement) to be Conducted

II. TASK DESCRIPTION

III. ARTEP MISSIONS AND TASKS SUPPORTED BY FIRE AND MANEUVER (MOVEMENT)

- A. Attack**
- B. Defend**

IV. CONDITIONS REQUIRING FIRE AND MANEUVER (MOVEMENT)

V. DECISION COMPONENT

- A. Conditions Affecting Decisions Involved in Directing Fire and Maneuver (Movement) to be Conducted**
- B. Information Required and Sources**
- C. Decision Principles**

VI. COMMAND COMPONENT

- A. Initial Signal or Order Should Contain the Following Information**
- B. Subsequent Signals or Orders Should Contain the Following Information**

VII. EXECUTION COMPONENT

- A. Conditions Affecting the Execution of Fire and Maneuver (Movement)**
- B. Information Required and Sources**
- C. Execution Principles**

APPENDIX B
ACTION TASK FORMAT OUTLINE

I. TASK TITLE: Platoon Leader Issues Frag Order

II. TASK DESCRIPTION

III. ARTEP MISSIONS AND TASKS SUPPORTED BY ISSUING A FRAG ORDER

- A. Move**
- B. Attack**
- C. Defend**

IV. CONDITIONS REQUIRING A FRAG ORDER

V. DECISION COMPONENT

- A. Conditions Affecting Decisions Involved in Issuing a Frag Order**
- B. Information Required and Sources**
- C. Decision Principles**

VI. ACTION COMPONENT

- A. The Frag Order Should Contain the Following Information**
- B. The Frag Order Will Be Given by Radio Based on the Following Conditions**
- C. The Frag Order Will Be Given Orally Based on the Following Conditions**